

PATENT CLAIMS

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- A medical instrument, particularly a surgical instrument with a displaceable push/pull rod arranged on the proximal end of a hand manipulator for activating remote tool parts at the distal end, wherein a force-limiting device is envisaged for limiting the transmission of force onto the remote tool parts from the hand manipulator via the push/pull rod characterized in that for creating the force-limiting device the push/pull rd is designed to have spring-like elasticity along its lateral length.
2. A medical instrument according to Claim 1, characterized in that the push/pull rod has at least sectional undulatory curves to provide the spring-like elasticity.
  3. A medical instrument according to Claim 2, characterized in that the individual sections with undulatory curves are designed on planes offset from one another.
  4. A medical instrument according to Claim 3, characterized in that the individual sections with undulatory curves are each designed on planes offset at 90° from one another.
  5. A medical instrument according to Claim 2, characterized in that the individual semi-curves of the sections with undulatory curves are designed to be offset at 90° or 135° from one another.
  6. A medical instrument according to Claim 2, characterized in that the spring-like elasticity of the push/pull rod can be adjusted through its shape and/or the number of undulatory curves.

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7. A medical instrument according to Claim 1, characterized in that the push/pull rod is designed with at least turned spring coil sections to provide the spring-like elasticity.
  8. A medical instrument according to Claim 7, characterized in that the push/pull rod can be adjusted through the gradient of the turned spring coil sections.
  9. A medical instrument according to Claim 7, characterized in that the turned spring coil sections have a large gradient.
  10. A medical instrument according to Claim 1, characterized in that the spring-like elasticity of the push/pull rod can be adjusted via the material of the push/pull rod.
  11. A medical instrument according to Claim 1, characterized in that the push/pull rod is made from one uniform piece of material.
  12. A medical instrument according to Claim 1, characterized in that the push/pull rod has a virtually constant cross section.